

Self-Efficacy

A Key to Improving the Motivation of Struggling Learners

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Self-efficacy . . . influence[s] task choice, effort, persistence, and achievement. Compared with students who doubt their learning capacities, those who have a sense of efficacy for [particular tasks] participate more readily, work harder, persist longer when they encounter difficulties, and achieve at a higher level. . . . Students do not engage in activities they believe will lead to negative outcomes. (Schunk and Zimmerman 1997, 36)

Many struggling learners resist academics, thinking that they lack the ability to succeed, even if they expend great effort. In other words, these struggling learners have low rather than high self-efficacy for academics. It is widely believed that without sufficiently high self-efficacy, or the belief that they can succeed on specific academic tasks like homework, many struggling learners will not make the effort needed to master academics. They will give up or avoid tasks similar to those previously failed (Baker and Wigfield 1999; Bandura 1993; Casteel, Isom, and Jordan 2000; Chapman and Tunmer 2003; Henk and Melnick 1995; Jinks and Morgan 1999; Lipson and Wixson 1997; Lynch 2002; Pajares 1996; Pintrich and Schunk 2002; Schunk and Zimmerman 1997; Walker 2003).

A key to reversing this perspective—getting struggling learners with low self-efficacy to invest sufficient effort, to persist on tasks, to work to overcome difficulties, to take on increasingly challenging tasks, and to develop interest in academics—is for teachers to systematically stress the development of high self-efficacy. Fortunately, research suggests that teachers can often strengthen struggling learners' self-efficacy by linking new work to recent successes, teaching needed learning strategies, reinforcing effort and persistence, stressing peer modeling, teaching struggling learners to make facilitative attributions, and helping them identify or create per-

sonally important goals (Ormrod 2000; Pajares 2003; Pajares and Schunk 2001; Pintrich and Schunk 2002; Schunk 1999; Zimmerman 2000a). For these strategies to be effective, however, struggling learners with low self-efficacy must succeed on the very type of tasks they expect to fail. This strongly suggests that classwork must be at their proper instructional level, and homework at their proper independent level (Culyer 1996; Lipson and Wixson 1997). Work should challenge rather than frustrate them (Strickland, Ganske, and Monroe 2002). It should strengthen expectations of success rather than failure. To achieve this, teachers need to (a) give struggling learners work at their proper instructional and independent levels, and (b) adhere to instructional principles likely to improve self-efficacy.

Frustration, Instructional, and Independent Levels

Perhaps the most important academic decision teachers make for struggling learners is determining the levels at which to instruct them. Swanson's (1999) findings support this contention. As part of a larger meta-analysis assessing the effectiveness of interventions for students with learning disabilities, he identified the instructional components that best predicted outcomes. Two of the more important components were controlling task difficulty and sequencing tasks from easy to difficult. His findings reflect recommendations that reading specialists have made for decades—instruct students at their proper instructional and independent levels and avoid the frustration level (Leslie and Caldwell 2001; McCormick 2003; Newcomer 1986).

Criteria for instructional, independent, and frustration level tasks are often defined by objective measures

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(e.g., the percent of words correctly identified in oral reading) and are influenced by each struggling learner's unique perceptions about what is frustrating or anxiety provoking. What one struggling learner finds challenging, another, with the same skills, can find frustrating and nightmarish. Challenge is also influenced by such factors as a struggling learner's ability to organize, initiate, monitor, and sustain activities. A task that one struggling learner has little difficulty structuring and organizing can overwhelm and frustrate another at the same academic level.

For struggling learners with expectations of failure, teachers should avoid tasks the learners find frustrating or anxiety provoking. If frequently encountered, such tasks will provoke dysfunctional but understandable avoidance reactions: refusal to start or complete work; off-task dawdling; unthoughtful, careless responses; distractibility and fidgetiness. Little learning will occur, and motivation will plummet. As Newcomer (1986) noted: "Continuing to expect a child to read material at his or her frustration level can create serious achievement and emotional problems" (26).

Although perceptions are personal and teachers may need to adjust instructional and independent level criteria for particular struggling learners, teachers should follow well-established guidelines for determining instructional and independent levels. In most cases, these guidelines set the stage for success.

For materials to be at a student's instructional reading level, students should quickly and correctly read aloud 90 to 95 percent of words in context and understand 70 to 89 percent of the text. Instructional level assumes that teachers will work with students, teaching vocabulary, skills, and strategies; monitoring and guiding practice; and structuring independent practice. For independent level materials, which students should find easier than instructional level materials, students should quickly and correctly read aloud 96 percent or more of the words in context and understand 90 percent or more of the text (McCormick 2003). Whenever students work by themselves, at their desks or at home, materials should be at their independent level. Giving instructional level homework to struggling learners is equivalent to giving them frustration level materials, as their independent work habits and skills are often poor and teachers are not there to teach, supervise, and support them.

Commercial informal reading inventories (IRIs) can help identify a struggling learner's instructional, independent, and frustration reading levels (Lipson and Wixson 1997; McCormick 2003). Although such IRIs are easy to administer, and some are supported by extensive validity data (Leslie and Caldwell 2001; McCabe and Margolis 1999), they lack the specificity of Curriculum-Based Assessment (CBA) for determining and monitoring struggling learners' reading levels in specific curriculum (Fewster and Macmillan 2002;

Idol, Nevin, and Paolucci-Whitcomb 1999). One CBA strategy for identifying struggling learners' instructional and independent reading levels is to individually administer a hierarchical series of 100-word selections from the books the learners will likely read (Idol, Nevin, and Paolucci-Whitcomb 1999). By having learners read three different selections from each prospective book that matches their estimated reading abilities and comparing each learner's median performance for accuracy (number of words correctly read), rate (correct words per minute) and comprehension (percent of questions correctly answered) to locally derived norms, teachers can get relatively reliable indications of the challenge these books present (Idol, Nevin, and Paolucci-Whitcomb 1999; Fewster and Macmillan 2002).

Teachers also can use the cloze procedure to quickly estimate the learners' ability to understand specific reading materials. The procedure, which has learners silently read passages of 250 to 300 words, can be administered to individual students or whole classes. Unlike the materials from which the cloze passages were copied, the cloze passage replaces every fifth word with a blank space of even length (Lipson and Wixson 1997; Spinelli 2002). Students write in the missing words. Materials on which students accurately identify 44 to 56 percent of the missing words (synonyms are counted as incorrect) represent their instructional level, 57 percent or more their independent level, and 43 percent or less their frustration level (Spinelli 2002). These guidelines can help teachers identify materials that struggling learners can successfully read.

Instructional and independent levels are different for tasks and assignments that do not stress the fluent identification of words in context. Salvia and Ysseldyke (2001) consider correct response rates of 85 to 95 percent challenging and less than 85 percent "too difficult." They caution for "students with severe cognitive handicaps, rates of correct response of less than 90 percent may indicate that the material is too challenging for guided practice" (25).

By adhering to these guidelines and, when they're too demanding, reducing them and the length, complexity, and abstractness of the work to reflect struggling learners' actual difficulties, perceptions of difficulty, and feelings of anxiety, teachers can often strengthen learners' self-efficacy for academics. One strategy for determining the adaptations needed is FLIP (Schumm and Mangrum 1991), which asks students to evaluate materials for friendliness (F), language (L), interest (I), and prior knowledge (P). By using FLIP, or adapting it to different subject matter, materials, and assignments, teachers can design instruction that increases the probability of success.

Whenever instructional or independent level data are unclear and teachers have to choose between more

or less difficult levels, they should choose the less difficult. As struggling learners' moderate efforts produce high rates of success, more challenging materials and tasks should replace easier ones. Otherwise, they will have little opportunity to learn anything new, may get bored, and may think that teachers have little confidence in their abilities.

Instructional Principles

Frequently Link New Work to Recent Successes

To effectively link new work to recent successes requires many recent successes. To create many, teachers need to "stack the deck for success" by adhering to the struggling learners' proper instructional and independent levels, "stimulating recall of prerequisite learning" (Borich 2000, 159), shortening and simplifying work, and limiting the number and length of assignments. The key is giving learners moderately challenging work they can succeed at, if they make a moderate effort.

One way to help assure that struggling learners get tasks likely to produce high rates of success is to systematically employ CBA and to continually monitor learners' success rates (Rieth and Evertson 1988). By administering brief CBA probes several times a month, to assess progress in learners' areas of difficulty (e.g., reading, writing, spelling), and designing instruction and assignments to match their achievement and readiness to handle similar or increasingly challenging tasks, teachers can increase the learners' probability of success (Alper, Ryndak, and Schloss 2001; Galagan 1985; Spinelli 2002).

Once struggling learners have recent successes to draw on, teachers can help them link new work to their previous successes by explicitly showing and asking them how the new work resembles those past successes and then reminding them of what they did to succeed. Examining prior successes also provides teachers an excellent opportunity to employ one or several other self-efficacy enhancing strategies: teaching struggling

learners to evaluate their work and chart their successes; teaching them to attribute success to controllable factors like effort, persistence, and correct use of strategies; having them review and annotate portfolios of successful work; helping them identify or develop specific, short-term, realistic goals; and persuading them to keep trying (Henk and Melnick 1998; Ormrod 2000; Pintrich and Schunk 2002; Schunk 2003; Walker 2003).

Teach Needed Learning Strategies

Characteristically, struggling learners do not know how to approach academic tasks. They do not know what learning or cognitive strategies to use or how to use them (Ellis and Lenz 1996; Vaughn, Gersten, and Chard 2000). Thus, teachers need to explicitly and systematically teach them the secrets of learning—the strategies that produce success (Swanson 2000).

Explicit, systematic instruction involves sequencing materials and tasks from easy to difficult; modeling and explaining to struggling learners, in a simple step-by-step fashion what they need to do; providing feedback about what they are doing right and what they need to do differently; providing abundant opportunities for guided practice, with task-specific feedback about how to correct errors; and, when they have achieved a high degree of proficiency (e.g., 96 percent word recognition in context for reading [McCormick 2003] and 85 percent on non-word recognition tasks, such as subtraction problems [Joyce and Weil 1996]), having them practice independently. As Vaughn, Gersten, and Chard (2000) concluded: "Teaching students how to apply a particular strategy should be overt, and students should have multiple opportunities to practice the strategy under quality feedback conditions before they are expected to use the strategy on their own" (105).

In addition to sequencing, modeling, explicit step-by-step directions, feedback, correction, and practice (Pintrich and Schunk 2002; Swanson 2000), teachers might increase struggling learners' expectations of success by involving them in cooperative learning activities which are well within their ability to achieve. They know they will discreetly get whatever help they need, and they view their group as friendly and internally non-competitive (Alderman 1999; Henk and Melnick 1998; Schunk and Zimmerman 1997; Vermette 1998). Teachers might also increase struggling learners' expectations of success by giving them strategy reference cards to use whenever they want (Casteel, Isom, and Jordon 2000). Reference cards present and illustrate each step of a strategy in ways struggling learners can readily comprehend. If they use reference cards when learning a strategy, they are apt to feel comfortable with them. Because they determine when to use the cards, they can dispense with them when they want. By putting struggling learners in control of using the cards

FLIP question: "How difficult is the language in my reading assignment?"

Possible student responses:

- Many new words; complicated sentences
- Some new words; somewhat complicated sentences
- No new words; clear sentences

Source: Schumm and Mangrum 1991, 122.

FIGURE 1. Sample FLIP question and possible responses.

and modeling the use of the cards themselves, teachers can eliminate any stigma associated with them.

For struggling learners who believe they lack the ability to succeed and who avoid more than superficial involvement in schoolwork, explicit, systematic strategy instruction may lack the power to involve them in meaningful, engaging ways. In such situations, teachers (and in some cases, parents) need to provide extrinsic, age-appropriate reinforcers (e.g., stickers, small toys, free time, computer time) that struggling learners are willing to work for until they become interested in the work and develop a strong, sustaining belief that with moderate effort, they can succeed. To prevent extrinsic reinforcement from backfiring and to reduce or eliminate it within a few months, teachers need to adhere to several basic principles of reinforcement and instruction:

- Use the smallest, most natural reinforcers for which struggling learners will work.
- Vary reinforcers to avoid boredom; change reinforcers that no longer work.
- Start by reinforcing struggling learners every time they correctly apply the strategy; briefly explain why they earned the reinforcer.
- Gradually thin out the frequency of extrinsic reinforcement by reinforcing fewer instances of correct strategy application. Go slow—do not reduce reinforcement too quickly.
- From the beginning, pair tangible, extrinsic reinforcers with common social and verbal reinforcers (e.g., smiles, task-specific praise).
- Reinforce struggling learners in all environments and situations in which they should use the learning strategy and correctly use it (e.g., with different teachers or in different classes, reinforce correct strategy use).
- Listen to struggling learners to learn about their personal goals, values, interests, and problems and link schoolwork to these.
- Stress work that struggling learners find important, interesting, or curiosity arousing.

Reinforce Effort and Persistence

Social cognitive theory predicts that many struggling learners, students who have suffered countless academic difficulties and failures, will have low self-efficacy for academics (Henk and Melnick 1998; Jinks and Morgan 1999; Schunk and Zimmerman 1997; Walker 2003; Zimmerman 2000a). Consequently, they are less prone than successful learners to tackle tasks they perceive as difficult, invest significant effort in such tasks, persist in the face of difficulty, and perform at high levels (Bandura 1997; Ormrod 2000; Pajares 1996; Schunk 1999; Zimmerman 2000a).

To strengthen struggling learners' self-efficacy, teachers need to select tasks well within struggling learners'

abilities, sequence tasks from easy to difficult, help struggling learners realize they have the skills to succeed, provide them with help and encouragement whenever needed, show them how to correct their mistakes, and introduce "difficult" tasks only when they are no longer difficult—when struggling learners have mastered the prerequisites on which success depends (Rosenshine 1983; Salvia and Ysseldyke 2001; Swanson 2000). In such situations, resistance will often evaporate, creating legitimate opportunities to reinforce effort and persistence.

Resistance, however, will not evaporate if the initial tasks are too lengthy, too complex, or too difficult. Thus, to create opportunities to reinforce effort and persistence, initial assignments should be challenging but well within the struggling learners' abilities. Success should require reasonable, moderate effort—not Herculean. Struggling learners should view tasks as doable, not impossible.

Doable tasks that struggling learners can successfully complete with moderate effort makes "effort feedback" credible and can enhance self-efficacy, motivation, and achievement (Schunk 2001). Effort feedback, however, can backfire, if struggling learners are frequently reinforced for the effort invested in repeating the same task. They may "doubt their capacities and wonder why they still have to work hard to succeed" (Schunk 2001, 139).

Stress Peer Modeling

Although teacher modeling is highly effective (Swanson 2000), peer models may be particularly effective in strengthening self-efficacy (Alderman 1999; Pajares and Schunk 2001; Schunk 1999, 2003). Fortunately, teachers who give students interesting work at their proper instructional and independent levels usually have several peer models to choose from, as such work encourages proper behavior.

Peer models can be mastery or coping models. Peer coping models have the advantage of showing struggling learners how other students, similar to them, make and overcome mistakes in acquiring and applying new skills and learning strategies. This fosters the belief, "She's like me. If she can do it, I can" (Schunk 2001).

To improve the effectiveness of peer coping models, teachers should

- choose an important skill or strategy that is likely to challenge but not frustrate models and struggling learners;
- break complicated skills and strategies into manageable components;
- select models who resemble the struggling learners and who they respect;
- have models explain their actions, in a simple step-by-step manner, while they work to learn and apply the skill or strategy;

- have models correct their mistakes and verbally attribute failures to controllable factors (e.g., poor effort) and successes to controllable factors (e.g., correctly using a strategy) and ability (e.g., “I read well enough to use the Multipass strategy”);
- have struggling learners observe models reinforced, in a variety of appropriate situations, for correctly using the targeted skill or strategy; and
- reinforce struggling learners, in a variety of appropriate situations, for correctly using the targeted skill or strategy.

Teach Students to Make Facilitative Attributions

Attributions are people’s explanatory beliefs about why things happen to them. They explain success and failure and influence future actions, including effort, persistence, and choices (Bandura 1997; Pajares and Schunk 2001; Zimmerman 2000b).

The attributions that people assign to the things that happen to them . . . guide their future behavior. . . . [Students] may attribute their school successes and failures to . . . aptitude or ability (how smart or proficient they are), effort (how hard they tried), other people (how well the teacher taught or how much their classmates like them), task difficulty (how “easy” or “hard” something is), luck, mood, illness, fatigue, or physical appearance. . . . If students erroneously attribute their failures to stable and uncontrollable causes, they are unlikely [emphasis added] to change their future behaviors in ways that will lead to greater success. (Ormrod 2000, 497–98)

To counteract the effects of erroneous attributions that destroy self-efficacy—reducing struggling learners’ willingness to try, to make reasonable efforts, and to persist—teachers need to stress accurate, facilitative attributions throughout the day and teach struggling learners to do the same.

Facilitative attributions associate successes with controllable factors, such as effort, persistence, and the correct use of learning or cognitive strategies. They stress what students did (Composite explanation: “I succeeded because I tried very hard. . . . I stuck to it. . . . I followed the steps on my cue cards”). Similarly, they attribute poor performances and failures to the same controllable factors, but stress what students did not do (Composite explanation: “I failed because I didn’t try hard enough. . . . I didn’t stick to it. . . . I didn’t follow the steps on my cue cards”).

Facilitative attributions also link successes to ability, such as learned intelligence (e.g., “I’m smart about that now. I learned how to use Multipass to understand the tough parts of my science book”). In contrast, they divorce poor performance or failure from ability.

Many experts have recommended combining attribution statements with cognitive strategies (Borkowski, Weyhing, and Carr 1988; Chapman and Tunmer 2003; Fulk 1994; Mushinski Fulk and Mastropieri 1990; Pin-

trich and Schunk 2002; Schunk and Rice 1993; Shelton, Anastopoulos, and Linden 1985). In a sense, it provides the best of both by giving struggling learners the formula, the secret for achieving success—the strategy—and teaches them to take credit for using and sticking with the strategy. Mushinski Fulk and Mastropieri (1990) designed a model for integrating strategy and attribution instruction.

Help Students Create Personally Important Goals

Perhaps nothing is more motivating than combining personally important goals with the belief that with reasonable effort, they are achievable (Pintrich and Schunk 2002; Schunk 2001; Zimmerman 2000b). But not every goal is motivating. Not every goal will improve low self-efficacy. For goals to positively influence self-efficacy and motivation, they need to be personally important to struggling learners, short-term, specific, and achievable (Alderman 1999; Bandura 1997; Schunk 1999; Stipek 1998). Moreover, to sustain motivation, struggling learners need credible feedback that they are making substantial progress toward achieving their goal (Alderman 1999; Bandura 1997; Pajares and Schunk 2001; Schunk 1999, 2003).

Personally important goals are goals that students want to achieve, goals they think will make an important difference in their lives. Struggling learners are far more likely to work to achieve goals that are important to them (Slavin 1999), and which they think they can achieve, than goals they view as unimportant and beyond their abilities.

Short-term goals (e.g., “Get a B+ on next week’s social studies test”) work hand in hand with long-term goals (e.g., “Pass social studies so I’m eligible for the hockey team”). Long-term goals, goals that will take months or years to attain, express students’ dreams, students’ hopes. Short-term goals are subgoals; they are intermediate steps between the present and long-term goals. Struggling learners need short-term goals to prevent loss of motivation, caused by the remoteness of long-term goals. Without frequent, explicit, visible feedback that they are making progress on short-term goals, struggling learners often get discouraged, retreating from academics. Frequently noting progress improves self-efficacy and motivation (Schunk 1999, 2001).

Specific, short-term goals are easily measurable, allowing struggling learners and teachers to frequently evaluate progress against a clear standard. For example, struggling learners can easily judge whether they met these specific, short-term goals:

- Write two compositions that earn a “B” on the class writing rubric.
- Try out for the band.

Although many struggling learners can monitor and evaluate their work, some cannot. Teachers can teach

struggling learners to monitor their work by frequently demonstrating think-alouds when evaluating struggling learners' work (Tierney and Readance 2000; Walker 2003; Wilhelm 2001), and teaching them to use simple self-evaluation forms, rubrics, learning strategy reference cards, and learning strategy checklists (Casteel, Isom, and Jordan 2000; Lipson and Wixson 1997; Walker

Step 1: *Explain purpose.* Explain the purpose of the strategy. Make sure the student understands how the strategy will help her. Relate the purpose to the student's frame of reference so she sees value in learning the strategy.

Step 2: *Discuss effort.* Discuss with the student how she controls her own effort and the critical role effort plays in producing successful outcomes.

Step 3: *Model examples.* Apply the strategy correctly and incorrectly. Label the examples correct and incorrect.

Step 4: *Model attributions.* Model controllable attributions while engaging in the strategy (e.g., "I got the right answer because I first skimmed the chapter, read all the headings and subheadings, and tried hard. . . . I got the wrong answer because I rushed and didn't skim the whole chapter. I didn't try hard.")

Step 5: *Provide guided practice.* Give the student ample opportunity to practice the combined strategy-attribution sequence with timely task-specific feedback until she routinely gets the right answer, makes positive attributions about her efforts, and appears comfortable with the strategy (e.g., "Kelly, that's great. You got the right answer because you first skimmed the chapter and worked hard. You told yourself that putting the effort in improves your understanding.").

Step 6: *Provide independent practice.* Give the student ample opportunity to use the combined strategy-attribution sequences by herself. Monitor student behavior and offer task-specific feedback as needed (e.g., "Nice job Kelly. You worked hard and gave yourself credit for skimming the chapter before reading it. Your effort made a difference.").

Step 7: *Conduct formative evaluation.* Assess the student's progress and modify teaching strategies if difficulty is apparent (e.g., if Kelly has trouble skimming full chapters of some twenty pages, reduce skimming to a more manageable fraction and provide more frequent feedback).

Step 8: *Introduce a new strategy.* Once the student routinely uses the strategy correctly and takes credit for making adequate effort and using it correctly, introduce a slightly different strategy appropriate for the student's instructional level. Re-institute attribution retraining sequence with step 1.

Note: Adapted from B. M. Mushinski Fulk and M. A. Mastropieri 1990.

FIGURE 2. General steps for combined attribution retraining and strategy instruction.

1997, 2003). Figure 3 illustrates how teachers might use a think-aloud with a learning strategy checklist.

Realistic goals, goals that struggling learners can achieve with moderate effort, are more motivating than excessively difficult or excessively easy goals. Excessively difficult goals lead to resistance or despair because struggling learners believe them impossible to achieve. In contrast, excessively easy goals offer no challenge. They are boring; when achieved, struggling learners do not feel more competent. One instance in which excessively easy goals may be appropriate, but only temporarily, is when struggling learners are reeling from sustained difficulty and failure and need successful experiences to begin restoring confidence.

If struggling learners lack personally important goals, or they are vague, teachers should help them formulate precise, personal goals. Otherwise, it is more difficult to meaningfully involve them in academics. Fortunately, many struggling learners appreciate the activity, as they, like most people, want something. The two keys are finding out what struggling learners want and helping them express it in explicit, visible, concrete terms.

One way to get the information needed to help struggling learners formulate personally important goals is to ask them to complete an interest inventory. Another, more personal way is to listen empathetically to them about anything they want to discuss. Teachers can then meet with them and use this information to collaboratively write down the struggling learners' long-term and related short-term goals. One strategy to better understand their goals, and to help them better understand their own goals, is for teachers and struggling learners to circle, discuss, illustrate, and define vague words—words that are difficult to visualize and describe. If the opportunity to help struggling learners develop personally important goals is unavailable, teachers might ask guidance counselors for assistance.

Once struggling learners have defined personally important, specific, realistic, short-term goals, and understand their relationship to their long-term goals and schoolwork, teachers and struggling learners need

Scene: The teacher reads a paragraph aloud to his class. The paragraph, on Martin Luther King's assassination, is projected onto a screen, from an overhead projector. As the teacher reads aloud, he illustrates the Paraphrasing Reading Strategy (Ellis 1996) by saying:

- I'm using the RAP strategy.
- The three steps are "R" for Read a paragraph, "A" for Ask yourself what the paragraph was about, and "P" for Put the main idea and two details in your own words.
- I read the paragraph. I'll check the "R" on my checklist.

FIGURE 3. A teacher think-aloud for a learning strategy checklist.

to frequently assess progress toward achieving these goals (Schunk, 2001). If struggling learners are making good progress, teachers and learners should discuss what they are doing to produce success; if progress is poor, how to improve the situation. Typically, as learners note progress, their self-efficacy and enthusiasm for learning improves.

Incorporate Other Motivational Factors

Motivation, or the willingness to initiate and sustain goal directed activity, is influenced by self-efficacy (Bandura 1993; Henk and Melnick 1998; Jinks and Morgan 1999; Pajares and Schunk 2001; Pintrich and Schunk 2002; Schunk and Rice 1993; Schunk and Zimmerman 1997; Zimmerman 2000b; Zimmerman and Martinez-Pons 1990). "If," as an old saying goes, "people don't think they can, they won't." The converse, however, is not true. Just because people think they can do something, does not mean they will. However, they will likely invest in activities they find interesting or valuable, if their environment is safe and supportive, and if difficulties do not lead to embarrassment or comparisons with more successful peers. Thus, attempts to increase self-efficacy must take place within emotionally safe, secure classes that emphasize motivational principles that create or nurture a desire to learn and achieve. Such classes are usually taught by enthusiastic, optimistic teachers who

- run well-organized classes;
- encourage students to use well-organized, well-stocked learning centers and libraries;
- treat students with respect;
- show interest in students;
- give students choices;
- relate curriculum to students' lives and interests, in and out of school;
- radiate interest in their lessons;
- stimulate and maintain curiosity;
- engage students in collaborative learning activities, such as cooperative learning and peer tutoring;
- encourage sharing;
- use a variety of teaching approaches, appropriate to lesson objectives;
- make expectations clear and realistic;
- provide help, whenever needed, in socially appropriate ways, that avoid student embarrassment;
- compare students' achievements to their past achievements, rather than to other students';
- stress cooperative rather than competitive activities;
- provide frequent, immediate, task-specific feedback, including corrective comments and justified praise;
- ensure that students have the prerequisite knowledge and skill to master new topics and assignments;
- emphasize what is right about students' work; and
- challenge rather than frustrate students.

Caveats

As Linnenbrink and Pintrich (2003) noted, "Psychology and educational psychology are probabilistic sciences. . . . [Because they examine] what occurs, on average, across situations, there may be . . . situations where the principles do not apply. . . . [Thus,] it is important that teachers use psychological research as a guide . . . rather than a prescriptive device" (134). Consequently, teachers who employ this article's suggestions need to monitor their effects on struggling learners and continue to use and refine those suggestions that work and modify or abandon those that don't. More important than any single suggestion is addressing struggling learners' self-efficacy in informed, systematic ways.

Because self-efficacy is task-specific (e.g., affected by the level and complexity of the task and the social and physical context in which it must be completed), attempts to strengthen it need to focus on the specific task or academic subject in which struggling learners feel incompetent. It is quite possible, for example, that they feel highly confident in one subject (e.g., mathematics) and inadequate in another (reading). The distinction is often finer. In reading, some have confidence in their comprehension abilities with second grade materials but none in their second grade word recognition skills.

No one knows how high self-efficacy must be to improve poor effort, persistence, and academic performance. High self-efficacy, however, is not always good. Overconfident or cocky students may not invest the effort needed to do well (Zimmerman 2000b). Therefore, they need intrinsically interesting tasks that, within reason, challenge their abilities. If they are overconfident and uninterested in tasks, teachers need to link reinforcement to both effort and accomplishment (Pajares 2003; Pintrich and Schunk 2002).

To succeed, struggling learners often need teachers' assistance. If materials and tasks are at the learners' proper instructional and independent levels, the help needed should be minimal. If learners need excessive help, or have to invest a Herculean effort, the task is at their frustration level. In such situations, teachers need to modify tasks so struggling learners need only minimal help.

If teachers often give more help than struggling learners need, they may interpret this as a sign that teachers think they are incompetent (Schunk 2001). Thus, teachers need to carefully assess the amount of help needed and give struggling learners the least amount of help needed to achieve success.

Often, struggling learners' low self-efficacy is part of larger, more complex problems. Although the suggestions in this article can often improve self-efficacy, they will probably be most effective if incorporated into a comprehensive program that systematically addresses

the struggling learners' priority needs. Moreover, some struggling learners have had so much failure in their lives, and have so many other problems, that efforts to improve self-efficacy will take a long time and an informed, coordinated, skilled effort on the part of teachers, related service personnel, and parents. Not addressing struggling learners' self-efficacy needs, however, is likely to impede educational progress (Bandura, 1993), as "students' self-beliefs about academic capabilities . . . play an essential role in their motivation to achieve" (Zimmerman 2000a, 89).

Conclusion

For students to meaningfully involve themselves in learning for sustained periods, sufficient self-efficacy is required. Understandably, many struggling learners believe that academics mean failure and frustration—they have low self-efficacy for academics.

To reverse this, teachers must recognize that low self-efficacy is not an immutable, global trait. Rather, it is a modifiable, task-specific set of beliefs derived largely from frequent failures. By matching task difficulty to struggling learners' instructional and independent levels, linking new work to recent successes, teaching them strategies that produce success, reinforcing effort and persistence, using peer models, stressing and teaching facilitative explanations for successes and failures, and helping them understand how schoolwork can help them achieve personally important goals, teachers can often strengthen struggling learners' self-efficacy. By doing so, teachers increase the likelihood that struggling learners will become more motivated, more involved, more persistent, and more successful learners.

Key words: motivation, reading disabilities, self-efficacy, struggling learners

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